

Heights of rivers above zeros of gauges—Continued.											Heights of rivers above zeros of gauges—Continued.											
Stations.	Distance to mouth of river.	Danger-line on gauge.	Highest water.		Lowest water.		Mean stage.	Monthly range.	Heights of rivers above zeros of gauges—Continued.													
			Height.	Date.	Height.	Date.			Height.	Date.	Height.	Date.	Mean stage.	Monthly range.	Height.	Date.	Height.	Date.	Mean stage.	Monthly range.		
<i>W. Br. of Susquehanna.</i>	Miles.	Feet.	Feet.		Feet.		Feet.	Feet.														
Lock Haven, Pa.	68	10	1.0	1.2	0.8	16-23	0.6	0.7														
Williamsport, Pa.	35	20	2.4	4	1.0	30	1.5	1.4														
<i>Juniata River.</i>					11-20		22-34															
Huntingdon, Pa.	80	24	3.5	1.91	8.0	22-34	3.1	0.5														
<i>Sacramento River.</i>					14-18		27-30															
Redbluff, Cal.	241	23	2.9	21	1.0	27-30	1.6	1.9														
Sacramento, Cal.	70	25	19.6	1	18.9	30	16.0	5.7														
<i>Willamette River.</i>											Miles.	Feet.	Feet.		Feet.		Feet.		Feet.		Feet.	
Eugene, Oreg.	149	10	4.4				27															
Albany, Oreg.	99	20	4.3				28															
Salem, Oreg.	69	20	4.2				28															
Portland, Oreg.	10	15	28.8		1.2	15.0	19.26-30															

\*Distance to the Gulf of Mexico. †Record for 29 days.  
‡Record for 19 days.

## SPECIAL CONTRIBUTIONS.

### RECENT PUBLICATIONS.

By HERMAN W. SMITH, Librarian, Weather Bureau.

**Argentine Republic.**—Los Cereales y Oleaginosos Trillados en la Provincia de Buenos Aires en la Cosecha de 1895-1896. La Plata, 1896, 4to. lxxxiii, 64 pp. 13 chs.

**Austria-Hungary.**—Rapporto Annuale dell Osservatorio Astronomico-Meteorologico di Trieste per l'anno 1894. Trieste, 1897. 4to. 114 pp.

Frejlač, Dr. Josef. Prispevky K. Poznani Nefometrickych Pomeru Zemi Hercynsko-Sudetskych. Prag, 1897. 8vo. 24 pp. 3 chs.

**British Empire.**—Marriott, William. Hints to meteorological observers, with instructions for taking observations, and tables for their reduction. London, 1897. 8vo. 47 pp.

Annual Report of the Geological Survey of Canada. Vol. VIII. Ottawa, 1897. 8vo. 998 pp. 6 maps.

Cook, John. Report on rain-fall registration in Mysore for 1895. Bangalore, 1896. 4to. 35 pp. 1 ch.

**France.**—Plumandon, J. R.—Les Gelées: Moyens de les Prévoir et d'en préserver les Récoltes. Paris, 1895. 8vo. 23 pp.

**German Empire.**—Bergholz, Dr. Paul. Deutsches Meteorologisches Jahrbuch für 1896. Freie Hansstadt Bremen. Bremen, 1897. 4to. xii, 125 pp.

Ergebnisse der untersuchungen der Hochwasserverhältnisse im Deutschen Rheinengebiet, bearbeitet und herausgegeben von dem Centralbureau für Meteorologie und Hydrographie im Grossherzogthum Baden. 3 and 4 Heft. Berlin, 1897. 14 x 10. vi, 148 pp. 15 chs.

Deutsches Meteorologisches Jahrbuch Jahrgang 1895. Meteorologische Beobachtungen in Württemberg. Stuttgart, 1897. 4to. 94 pp. 7 chs.

Königlich Preussisches Meteorologisches Institut. Ergebnisse der Niederschlags-Beobachtungen im Jahre 1894. Berlin, 1897. 4to. 205 pp. 3 chs.

Aus dem Archiv der Deutschen Seewarte. xix Jahrgang: 1896. 4to. 148 pp. 1 ch. 2 tabs. and 2 diagrams.

Contains Memoirs by the following:  
E. Knipping, 44 pp.  
Die Direction, 6 pp.  
Carl Stechert, 41 pp.  
E. Engelenburg, 51 pp.

**Italy.**—Agamennone, G. Il Tromometro Fotografico. Modena, 1897. 8 vo. 17 pp.

Agamennone, G. Vitesse de Propagation du Tremblement de Terre d'Amed (Asie M.) du 16 avril 1896. Modena, 1897. 8 vo. 20 pp.

**Sweden.**—Meteorologiska Iakttagelser i Sverige. Vol. 33, 1891. Stockholm, 1895. 4to. viii, 155 pp.

**United States of America.**

### District of Columbia.

Bolton, Henry Carrington. A catalogue of scientific and technical periodicals 1665-1895. Second edition, Part II. Smithsonian miscellaneous collections. Washington, 1897. 8vo. Pp. 603-1015.

Report of the Mississippi River Commission to the Secretary of War. Stages of the Mississippi River and of its principal tributaries. Washington, 1896. 8vo. xli, 56 pp.

**Kansas.**—Report of the Board of Irrigation Survey and Experiment for 1895 and 1896. Topeka, 1897. 8vo. 238 pp. 24 pls.

**Maine.**—Proceedings of the Portland Society of Natural History, Vol. II, Part 4. Portland, 1897. 8vo. Pp. 97-137.

**Ohio.**—Cleveland Public Library. Cumulative Index to a selected list of periodicals. Authors, Subjects, Titles, Reviews, Portraits. Vol. 1, 1896. Cleveland, 1897. 4to. 384 pp.

**Pennsylvania.**—Auchincloss, W. S. Water within the Earth and laws of rainfall. Philadelphia, 1897. 8vo. 43 pp.

## TEMPERATURE AND RAINFALL AT MERSIVAN, TURKEY.

The following table of monthly and annual means gives the results of observations made under the direction of J. J. Manissadjian, Professor of Physical Science, Anatolia College, Merzifun (Mersivan or Marsovan), Turkey in Asia. The location of the observatory is: Latitude 40° 50' N., longitude 35° 40' E. The temperatures were observed at 8 a. m., 1:15 p. m., and 6:30 p. m., besides the daily maximum and minimum. No details are given as to the method followed in combining these observations so as to obtain daily and monthly mean temperatures. Owing to the high mountains north and east of the station, the climate must be quite local in its characteristics.

Month.	Mean temperature.						Extreme temperatures.		Total rainfall.					
	Maxima.			Minima.										
	1892.	1893.	1894.	1895.	1896.	Mean.	Temp.	Date.	Temp.	Date.	1895.	1896.	1897.	Mean.
Jan...	°C.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Feb....	2.2	2.1	0.5	6.5	0.6	2.4	22.5	30.95	-14	31.93	10.1	24.1	17.1	
March...	2.7	-1.1	0.9	6.4	0.5	1.7	19	14.95	-19	24.93	3.9	26.7	15.3	
April...	6.2	4.7	5.4	6.5	5.5	6.1	22	22.96	-6	24.93	31.0	24.4	27.7	
May...	9.0	5.0	11.3	10.6	9.3	9.0	25	30.96	-6	3.93	37.3	56.4	46.8	
June...	18.5	16.2	17.8	18.6	15.5	15.3	32.5	26.95	+2	1.93	28.8	91.2	93.5	
July...	18.8	19.6	20.8	19.1	20.3	19.4	35	19.95	7.5	1.93	44.2	70.7	67.4	
August...	20.0	22.0	21.9	23.5	22.8	22.2	34	9.95	8.0	3.93	33.2	52.2	52.2	
Sept....	20.4	21.8	22.0	22.9	24.5	22.8	37.5	6.95	9.5	30.95	21.0	10.1	15.8	
Oct....	18.1	17.4	17.9	16.3	20.4	17.9	32.5	8.94	2.5	24.95	40.4	59.8	50.1	
Nov....	16.9	14.7	15.8	15.8	17.4	16.3	31	26.95	1	27.95	40.9	8.8	24.8	
Dec....	7.2	11.3	6.7	9.3	8.9	8.6	20	1.95	5.5	26.95	5.8	47.9	37.1	
Means...	5.1	4.1	5.5	5.3	4.8	4.6	20	2.95	-9	3.95	13.6	13.5	16.4	
	11.7	11.9	12.0	13.2	12.6	12.3					497.0	494.5		

Temperature extremes: Maximum, 37.5°, August 6, 1896; minimum, -19°, February 10, 1896.

## WHIRLING ALTO-STRATUS.

By MR. ALEXANDER G. MCADIE, Local Forecast Official (dated March 15, 1897).

Accompanying this are two photographs (see attached plate) of a whirling alto-stratus cloud which appeared over San Francisco on February 20, 1897, at 12 m. (seventy-fifth meridian time?). About thirty seconds elapsed between the two photo-